



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Waheguru Pal Singh

Group Art Unit:

Serial No:

NEW 10647104

Filed:

Examiner: Unknown

For: Extraction of Metals with  
Disquaternary Amines

Mail Stop DD  
Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

CERTIFICATE OF MAILING	
37 C.F.R. 1.8	
I hereby certify that this correspondence is being deposited with the U. S. Postal Service as First Class Mail in an envelope addressed to: Mail Stop DD, Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450 on this date below:	
1-29-2004	<i>Golanda Charles</i>
Date	Signature

INFORMATION DISCLOSURE STATEMENT

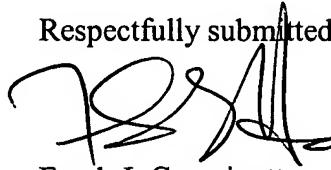
Pursuant to the duty of candor and good faith set forth in 37 C.F.R. § 1.56, the Applicant hereby discloses on behalf of individuals associated with the filing and prosecution of the present patent application information that might be material to patentability. This disclosure is presented via the enclosed Form PTO-1449.

This disclosure is not intended to constitute an admission that any information is "prior art" with respect to the presently claimed invention.

Copies of the patents and publications cited among the disclosed information are enclosed herewith, with the exception of U.S. Patents & U.S. Patent Applications the requirement for copies of which has been waived by the Office Notice of July 11, 2003 (*if the present patent application was filed after June 30, 2003*).

In the event a fee is required in connection with the enclosed Information Disclosure Statement, the Commissioner of Patents and Trademarks is authorized to charge Deposit Account No. 50-0714/LYNN/0144.C for the necessary amount.

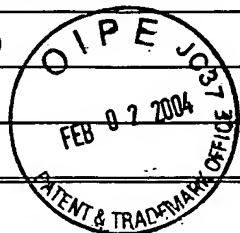
Respectfully submitted,



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U.S. Department of Commerce, Patent and Trademark Office		Docket No.	Serial No.
		LYNN/0144.C	NEW
LIST OF RELEVANT ART CITED BY APPLICANT		Applicant	
(Use several sheets if necessary)		Waheguru Pal Singh	
		Filing Date	Group



## U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
	A2	5,165,901	Nov. 24, 1992	Crozier, et al.			
	B2	4,571,266	Feb. 18, 1986	Konig, et al.			
	C2	4,105,742	Aug. 8, 1978	Edwards, et al.			
	D2	4,382,067	May 3, 1983	Richard A. Grant			
	E2	4,041,126	Aug. 9, 1977	Baltz, et al.			
	F2	4,726,841	Feb. 23, 1988	Grant, et al.			
	G2	5,256,187	Oct. 26, 1993	David L. Gefvert			
	H2	5,908,814	Jun. 1, 1999	Patel, et al.			
	I2	5,380,947	Jan. 10, 1995	Chen, et al.			
	J2	5,284,633	Feb. 8, 1994	David L. Gefvert			
	K2	6,207,143	Mar. 27, 2001	Lezdey, et al.			
	L2	5,478,376	Dec. 26, 1995	Grant, et al.			
	M2	4,861,564	Aug. 29, 1989	Julius Rebek			

## Foreign Patent Documents

Translation								
		Document Number	Date	Country	Class	Subclass	Yes	No
	N2	ZA 8006992	Oct. 28, 1981	South Africa				

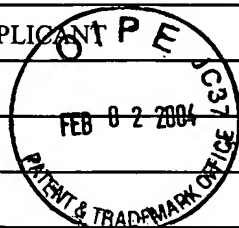
## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	O2	International Search Report, Application No. PCT/US 03/05444, International Filing Date 2/24/2003, 3 sheets						
	P2	Jan G. H. du Preez, Elmaré S. Herselman, Hans E. Rohwer, and Bennie J.A>M> van Brecht; "Polynitrogen regents in metal separations. Part 2. Diquaternary ammonium cations as precipitants for cobalt (II) and copper ;(II) in hydrochloric acid medium"; South African Journal of Chemistry, vol 38, no 2, 1985 pages 49053, XP009016468						

Examiner	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

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## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

Q2	J. G. H. du Preez, D. P. Shillington and B.J.A.M. van Brecht; "Polynitrogen Reagents in Metal Separation. Part 1. Diteritary and Diquaternary Ammonium Extractants for Cobalt (II) and Copper (II) in HCl Medium"; Solvent Extraction and Ion Exchange, vol 2 no 6, 1984 pages 839-858, XP009016470
R2	XP 002253113, Database CA Online, chemical Abstracts Service, Columbus, Ohio, US; Du Preez, Jan Gysbert Hermanus: "Organic diammonium and related compounds as solvent extractants", retrieved from STN data base accession no 97: 42075
S2	International Search Report, International Application No. PCT/US 03/05444, International Filing Date 2/24/2003, 6 pages
T2	WPI abstract; AN: 2001-103670 XP-002262954 & CN 1 146 495 (UNIV LAMZHOU (CN)); 2 April 1997 (1997-04-02)
U2	JP 10 008155 A (Nakazawa Hiroyuki (JP)) 13 January 1998 (1998-01-13) & PAJ abstract
V2	JP 59 179724 A (Tanaka Kikinzoku Kogyo KK (JP)) 12 October 1984 ((1984-10-12) & PAJ abstract
W2	JP 58 1754532 A (Tanaka Kikinzoku Kogyo KK (JP)) 13 October 1983 (1983-10-13) & PAJ abstract
X2	WPI abstract: AN 1979-002004 XP 002262955 & RO 65 77 6 A (Combinatul Petrochimic (RO)) 15 December 1978 (1978-12-15)
Y2	Vanessa J. Wotring, David M. Johnson, and Leonidas G. Bachas; "Polymeric Membrane Anion-Selective Electrodes Based on Diquaternary Ammonium Salts; Anal Chem. 1990, 62, pgs 1506-1510
Z2	J. Letho; "Ion Exchange in the Nuclear Power Industry"; Ion Exchange Process Advances and Applications; pgs 39-53
A3	M. A. Sadler, "Developments in the Production and Control of Ultrapure Water"; Ion Exchange Process Advances and Applications; pages 15-28
B3	Arup K. Sengupta and Tushar Roy; "Ion Exchange Mechanism, Resin Properties and Selective Removal of Hexavalent Chromate"; pgs 194-203
C3	S. Fredric Marsh; "The Effect of Trimethyl, Triethyl, Tripropyl, and Tributyl Amine Functional Groups in Strong-base Anion Exchange Resin on the Sorption of Pu(IV) from Nitric Acid"
D3	Piers Grumett, "Precious Metal Recovery from Spent Catalysts"; Platinum Metals Rev, 2003, 47, (4) pgs 163-166

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.